Amendments to the Drawings

The attached sheet of drawings includes changes to FIG. 17. This sheet replaces the original sheet including FIG. 17. In FIG. 17, previously omitted reference number 503 has been added.

Attachment: Replacement Sheet
Annotated Sheet Showing Changes

Remarks/Arguments

Applicants have received and carefully reviewed the Office Action of the Examiner mailed April 22, 2005. Claims 38-58 are pending. Claims 38-53 and 55-57 have been amended, and new claim 58 has been added. Support for the amendments and new claims is found in the specification, claims, and drawings as originally filed. No new matter has been added. Reconsideration and reexamination are respectfully requested.

Allowable Subject Matter

Applicants thank the Examiner for indicating that claims 54-57 would be allowable if rewritten or amended to overcome the objections and rejections set forth below.

Drawings

The drawings are objected to for not including a reference number 503 for the "inner tank" described on page 22, line 12. The attached replacement sheet containing FIG. 17 has been amended to include the reference number 503.

Claim Objections

Claims 39-43 and 54-57 are objected to because of various informalities. Claims 39-43 have been amended to correct the lack of antecedent bases; claim 54 has been amended to remove the redundant limitation.

Claim 54 is objected to for reciting "and/or." MPEP 2173.04 states that breadth of a claim is not to be equated with indefiniteness, citing *In re Miller*, 441 F.2d 689, 169 USPQ 597 (CCPA 1971). Applicants submit that the use of "and/or", while broadening the scope of the claim, does not render the claim indefinite. One of ordinary skill in the art would know that the claim language means that in some situations the controller would provide a delay after the sensor senses a level of pump fluid in the reservoir before switching the valve from the first

position to the second position and provide a delay when switching between the second position to the first position. The claim also covers the situation when the controller provides a delay after the sensor senses a level of pump fluid in the reservoir before switching the valve from the first position to the second position or between the second position and the first position. Applicants submit that the scope of the subject matter embraced by the claims is clear, and the claims comply with 35 U.S.C. § 112, second paragraph. Withdrawal of the objection is respectfully withdrawn.

Rejections under 35 U.S.C. § 112, second paragraph

Claims 39-48, 50-53, and 55-57 are rejected as being indefinite for being dependent on canceled claims. The Examiner is correct in his assumptions regarding the claim dependencies, and the claims have been amended accordingly.

Rejection under 35 U.S.C. § 102(b)

Claims 38, 39, and 44-52 are rejected as being anticipated by Millward (GB 2 303 178). Applicants respectfully traverse the rejection. Independent claim 38 has been amended to recite first and second air ports in fluid communication with the interior of the reservoir and first and second valves coupled to the first and second air ports, respectively, with the first valve coupling the first air port to a vacuum pump and the second valve coupling the second air port to the atmosphere. Independent claim 49, as amended, recites a reservoir with a shoulder that extends to a main reservoir top and a reservoir extension extending up from the main reservoir top, with the reservoir extension having a substantially reduced cross-sectional area relative to the main reservoir. Millward does not appear to teach or suggest such elements.

Millward teaches a pump system having a single exhaust outlet 26 connected to the vacuum pump 20. Millward teaches turning off the vacuum pump when the float device 32 gives a high level detection signal, to reduce the overall energy consumption. Millward does not provide any motivation or guidance for modifying his pump system to include the features now recited in independent claim 38.

The Examiner asserts that Millward teaches a reservoir with the upper portion being an extension. Millward does not specifically teach a reservoir extension and shows in FIG. 1, at best, a slightly tapered primary tank16. Independent claim 49, as amended, recites a main reservoir with a shoulder that extends to a main reservoir top. Millward shows the tank 16 having straight walls extending to the top of the tank. Millward thus does not teach or suggest a main reservoir with a shoulder. Millward also show only a slight taper of the tank towards the exhaust outlet 26, which one of ordinary skill in the art would not interpret as a reservoir extension having a substantially reduced cross-sectional area relative to the main reservoir, as is now recited in claim 49. Additionally Millward provides no suggestion or motivation for one of ordinary skill in the art to modify his pump system to include a reservoir extension as recited in claim 49. Millward thus fails to teach or suggest each and every element of the claims. Withdrawal of the rejection is respectfully requested.

Rejection under 35 U.S.C. § 103(a)

Claims 40-43 are rejected as being unpatentable over Millward in view of Allen (4,973,993). As stated above, Millward does not appear to teach or suggest the basic elements of the independent claims. Allen does not appear to supply what Millward lacks.

Additionally, Applicants submit that Allen is non-analogous art and that one of ordinary skill in the art would have no motivation, guidance, or expectation of success in combining the teachings of Millward and Allen. Millward is directed to a centrifugal pump priming system. Allen is directed to a method for sensing ink quantity for ink-jet printers and teaches that several means of sensing ink quantity and a low-ink condition are known in the art, including optical probes, thermistors, conductivity sensors, and pressure probes. Allen then states that many of the prior art methods suffer from deficiencies such as the fact that the sensors rely on the physical properties of ink, such as color or optical density, chemical composition, reactivity, mass density, viscosity, or electrical conductivity, and are thus limited in versatility. Applicants submit that one of ordinary skill in the art of centrifugal pumps, such as taught by Millward, would not be motivated to look to the ink-jet art of Allen for modifications to the float sensor taught by

Millward. Further, even if one were to combine the teachings of Millward and Allen, one would not likely achieve a functioning pump system. Allen states that the ink level sensors of the prior art are dependent on the physical characteristics of ink to function. Millward teaches pumping liquids such as water from one site to another, such as at a construction site. Applicants submit that one of ordinary skill in the art would have no reasonable expectation of success in substituting the ink-level sensors of Allen for the float of Millward. There is no suggestion, motivation or expectation of success in combining Millward and Allen. Withdrawal of the rejection is respectfully requested.

Claim 53 is rejected as being unpatentable over Millward in view of Sloan (4,116,582). As stated above, Millward does not appear to teach or suggest the basic elements of independent claim 49, from which claim 53 depends. Sloan does not provide what Millward lacks. Thus, even if one were to combine Millward and Sloan, one would not arrive at the claimed invention. Withdrawal of the rejection is respectfully requested.

Reconsideration and reexamination are respectfully requested. It is submitted that, in light of the above remarks, all pending claims are now in condition for allowance. If a telephone interview would be of assistance, please contact the undersigned attorney at 612-359-9348.

Respectfully Submitted,

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Brian N. Tufte, Reg. No. 38,638
CROMPTON, SEAGER & TUFTE, LLC
1221 Nicollet Avenue, Suite 800
Minneapolis, Minnesota 55403-2420
Telephone: 612-677-9050
Facsimile: (612) 359-9349

Attachments

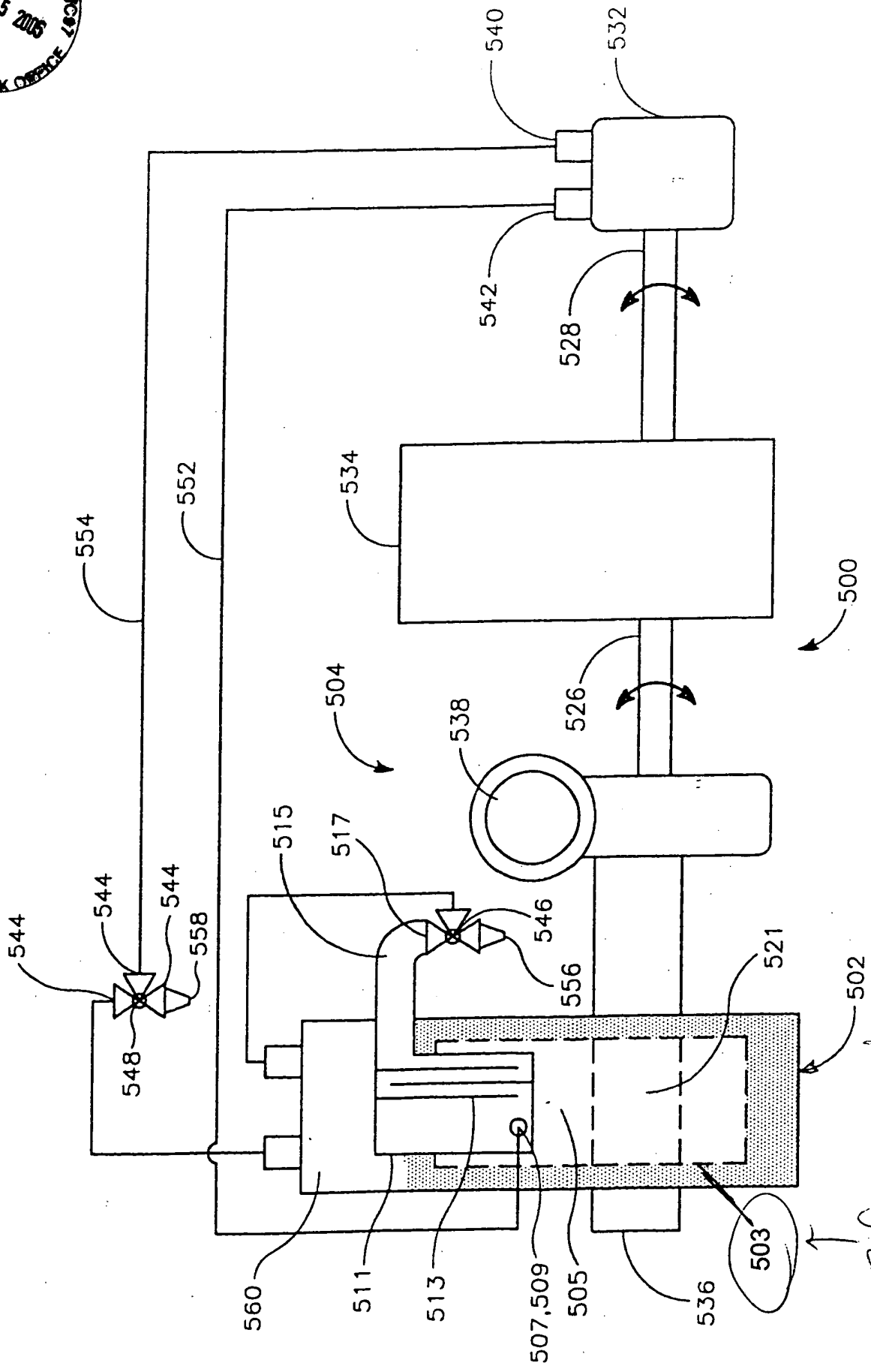

FIG. 17